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The Impact of Entrepreneurship Education through Active Learning and the Learning Office Program on Entrepreneurial Development: The Mediating Role of Entrepreneurial Attitudes and Intentions

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ABSTRACT

This study investigates the impact of entrepreneurship education (EE) through Active Learning (AL) and the Learning Office Program (LO) on entrepreneurial development, employing the Theory of Planned Behavior (TPB) as a theoretical framework. TPB emphasizes the importance of assessing intentions to initiate new ventures, focusing on attitudes, subjective norms, and perceived behavioral control.

The research targeted students and graduates of the Institute of Administration and Accounting in Kabul, which is part of the technical and vocational education and training (TVET) system. A quantitative design was utilized, surveying 412 participants through established scales and stratified random sampling. The data were analyzed using structural equation modeling (SEM).

The findings underscore the critical role of entrepreneurship education (EE) in fostering positive entrepreneurial attitudes and intentions, with the Learning Office Program (LO) significantly influencing these constructs. In contrast, the absence of a significant relationship between Active Learning (AL) and entrepreneurial attitudes (EA) indicates that while AL may enhance entrepreneurial skills, its direct impact on attitudes is less pronounced, highlighting the need for further research into effective active learning techniques. Ultimately, the study reinforces that EE, particularly through structured programs like LO, effectively enhances entrepreneurial outcomes and offers valuable insights for policymakers and educators. The positive effects of entrepreneurship education are further amplified by the mediating roles of entrepreneurial attitudes and intentions, emphasizing the necessity of a supportive environment for aspiring entrepreneurs, especially in developing countries grappling with youth unemployment.

Keywords- Entrepreneurship Education; Active Learning; Learning Office Program; Entrepreneurial Development; Entrepreneurial Attitudes; Entrepreneurial Intentions.

I. INTRODUCTION

Entrepreneurship education (EE) is essential for equipping graduates with the skills necessary to launch successful ventures and is widely recognized as a critical driver of economic growth and societal prosperity (Baumol & Strom, 2007; Blenker et al., 2014; Ndou et al, 2018; Yuan et al., 2020). Over recent decades, EE has

gained significant traction as a strategic approach to enhance entrepreneurial activity, leading to a notable increase in EE programs across various educational levels worldwide (Ahmad et al, 2023; He et al., 2024). These programs not only foster entrepreneurial initiatives but also contribute to creating a dynamic economic environment crucial for sustainable socio-economic development. Key attributes fostered within EE, such as drive, initiative, perseverance, commitment, and creativity, are fundamental to productive endeavors (Hasan et al., 2017). While entrepreneurship inherently promotes innovation, EE aims to further cultivate this innovativeness and develop essential skills like critical thinking, teamwork, and decision-making (Wilson et al., 2009).

In developing countries, the relationship between youth unemployment and poverty has positioned EE as a central theme in economic policy discussions, especially regarding its effectiveness in predicting educational outcomes and influencing entrepreneurial behavior (Bae et al., 2014; Ndofirepi et al., 2017). From a macroeconomic perspective, entrepreneurship serves as a vital catalyst for economic growth and global competitiveness (Sondari et al., 2014; Mamun et al., 2015). In response, numerous EE initiatives have been implemented to equip students with the knowledge and skills necessary to create economic value and job opportunities, positing that these programs will yield beneficial outcomes for participants (Duval-Couetil, 2013; Bux et al, 2019; Castaldi et al, 2020). The emergence of innovative enterprises, crucial for job creation, has further encouraged policymakers to endorse entrepreneurial activities as a strategy for economic advancement (Ghina, 2014). Research consistently demonstrates that EE positively influences students' entrepreneurial intentions, effectively addressing contemporary employment challenges (Dao et al, 2021; Rodrigues, 2023).

The relevance of EE is particularly pronounced in vocational education and training (VET) contexts, where acknowledgment from businesses and governments that entrepreneurship fuels market economies has spurred the growth of related educational programs, enhancing students' business competencies (Maritz et al., 2013). Additionally, EE programs have been linked to higher job satisfaction and improved quality of life, with increased achievement associated with higher earnings and reduced unemployment rates (Din et al., 2016).

Active learning methodologies within EE provide immersive experiences, enabling students to engage directly with entrepreneurs and observe real-world behaviors, particularly in navigating failure (Cooper et al., 2004; Prince, 2004; Faust et al, 2024). This hands-on approach fosters independence from external advice and enhances critical thinking (Manimala et al., 2017). Literature suggests that active, experiential learning yields superior outcomes compared to passive knowledge transmission methods (Deakins & Freel, 1998; Nabi et al., 2017). However, the practical implementation of these pedagogical methods often falls short, with meta-analyses indicating that while experiential methods correlate with improved learning outcomes, specific studies on EE remain limited and inconclusive (Nabi et al., 2017; Burch et al., 2019; Curtis et al., 2021).

The constructivist educational approaches proposed by Lackéus (2015) advocate for deeper learning, positing that active participation leads to tangible outcomes and the internalization of knowledge. This assertion is echoed by Curtis et al. (2021), who argue that experiential learning significantly enhances student outcomes. Nevertheless, empirical research exploring deep versus surface learning approaches in EE is scarce, highlighting the need for further investigation into whether active, experiential teaching methods can foster deeper learning and reduce surface learning among higher education students. Methodologies such as problem-based learning, design thinking, and service-learning are instrumental in developing entrepreneurial skills and fostering collaborative communities of practice (Kolb, 2014).

The significance of entrepreneurship as a viable skill presents challenges for Technical and Vocational Education and Training (TVET) institutions and program providers (Ismail et al., 2019). As nations strive to maintain competitiveness in the knowledge-based global market, there is a growing interest in developing educational programs that enhance entrepreneurship (Boldureanu et al., 2020). This study, titled The Impact of Entrepreneurship Education through Active Learning and the Learning Office Program on Entrepreneurial Development: The Mediating Role of Entrepreneurial Attitudes, investigates how EE influences students' entrepreneurial intentions, particularly among TVET students.

Grounded in the Theory of Planned Behavior (TPB) developed by Ajzen (1991), this research employs a conceptual framework that analyzes the interrelationships among various factors influencing entrepreneurial intentions. TPB posits that intentions are shaped by attitudes, subjective norms, and perceived behavioral control, making it particularly relevant for understanding entrepreneurial behaviors (Asghar et al., 2016; Liao et al, 2017). The study aims to elucidate how these components interact to influence students' entrepreneurial intentions, especially in the context of EE.

Research indicates that factors such as creativity, self-efficacy, and entrepreneurial attitudes significantly affect entrepreneurial intentions. For instance, Shi et al. (2020) illustrate how creativity enhances perceived behavioral control and subjective norms, while studies by Aga and Singh (2022) and Maheshwari and Kha (2022) emphasize the mediating roles of these constructs within the TPB framework.

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Ultimately, this study seeks to enhance the understanding of effective educational frameworks that cultivate entrepreneurial mindsets, providing valuable insights for policymakers and curriculum developers aiming to improve EE as a catalyst for economic and social development. By analyzing students' experiences with the 'Learning Office Program,' the research will identify how the program fosters competencies such as teamwork, decision-making, and innovative thinking, while also assessing the effectiveness of active learning methodologies in enhancing entrepreneurial intentions. The established links between education, venture creation, and entrepreneurial performance (Settles, 2009; Raposo et al., 2011; Su et al, 2021) further underscore the importance of this research in revealing how targeted training can enhance students' entrepreneurial skills, thereby contributing to a dynamic economic environment vital for sustainable socio-economic development, particularly in developing countries facing youth unemployment and poverty.

II. LITERATURE REVIEW

This literature review synthesizes research on the role of entrepreneurship education (EE) in fostering entrepreneurial intentions and skills, with a particular focus on gaps within existing literature. The significance of EE has been increasingly recognized as a critical factor in entrepreneurship development, with various studies highlighting its impact across different contexts.

i. Entrepreneurship Education and Entrepreneurial Development

Raposo and Paço (2011) underscore the critical role of entrepreneurship education (EE) in driving economic growth, noting that while programs are expanding, their immediate impact on venture creation necessitates longitudinal studies for a clearer understanding. They advocate for a focus on changing attitudes and skills rather than merely imparting knowledge. Supporting this perspective, Leitch and Harrison (1999) propose a dynamic process model for EE that promotes action-oriented teaching, enhances communication and leadership skills, and effectively links theory to practice. Their approach encourages collaborative learning that fosters both individual and organizational development, which is essential for cultivating an entrepreneurial ecosystem.

However, challenges remain in assessing the effectiveness of EE programs. Duval-Couetil (2013) identifies issues such as unclear learning outcomes and a lack of standardized assessment tools, offering practical strategies to improve program effectiveness and calling for rigorous research to demonstrate the value of EE. Additionally, findings by Maritz and Brown (2013) reveal significant increases in entrepreneurial self-efficacy (ESE) among participants of vocational education programs, particularly among women and older individuals, highlighting EE's role in developing entrepreneurial capabilities. Hasan, Khan, and Nabi (2017) further emphasize a positive correlation between various types of education—generalized, motivational, and augmented—and entrepreneurship outcomes, indicating that augmented education, which facilitates interactions with successful entrepreneurs, significantly enhances entrepreneurial intentions. This collective research highlights both the critical importance of EE in fostering entrepreneurial skills and the need for improved assessment mechanisms to evaluate its effectiveness.

Despite significant advancements in EE research, notable gaps remain in the field of TVET, especially in the majors of accounting and administration. Longitudinal studies assessing the long-term effects of EE on entrepreneurial outcomes are also underrepresented. For instance, Longva, Strand, and Pasquine (2020) found a decrease in entrepreneurial intentions among students, suggesting a shift toward employment preferences, which calls for integrating intrapreneurship insights into EE.

Additionally, research by Othman and Nasrudin (2016) highlights that while Malaysian polytechnic programs enhance skills, there is a pressing need for improved facilities and collaboration with local businesses. Similarly, Rahim and Mukhtar (2021) indicate significant relationships between curriculum, teaching methods, and entrepreneurial intentions in Malaysian universities, advocating for enhanced resources to foster entrepreneurship. Ndofirepi and Rambe (2017) further emphasize the importance of exploring psychological factors as mediators in the EE-intentions relationship, suggesting the need for a more nuanced understanding of these dynamics.

Overall, the literature underscores essential elements such as creativity and leadership in fostering entrepreneurship, as noted by Vakili et al. (2016), and the necessity for innovative teaching methods highlighted by Kuratko (2005). Systematic reviews, like those conducted by Galvão, Ferreira, and Marques (2018), demonstrate EE's role in regional development, while studies by Nabi et al. (2018) reveal the complex interactions between EE and entrepreneurial intentions. Addressing these gaps through robust assessment frameworks and longitudinal studies is crucial for demonstrating the value of EE and enhancing its impact on entrepreneurial development globally, particularly in developing countries where socio-economic conditions significantly influence outcomes.

ii. Active Learning and Learning Office Program in Entrepreneurship Education

Active learning is a pedagogical approach that emphasizes student engagement through participation and critical thinking. Bonwell and Eison (1991) define it as "instructional activities involving students in doing things and thinking about what they are doing." This method prioritizes skill development over mere information transmission, fostering higher-order thinking through tasks such as reading, discussion, and problem-solving (Brame, 2016). By creating an interactive environment,

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active learning encourages students to reflect on their attitudes and necessary skills. Incorporating brief, course-related activities for individuals or small groups keeps students mentally and physically engaged, with ongoing assessments of their understanding (Felder & Brent, 2009). The Learning Office Program exemplifies a structured strategy for implementing active learning within entrepreneurship education, facilitating experiential learning and collaboration among students with diverse skill sets (TVET, GIZ & KFW, 2020). This program enhances student engagement by allowing the application of theoretical knowledge to practical scenarios, ultimately promoting entrepreneurial competencies.

Research supports the efficacy of active learning in entrepreneurship education. Gielnik et al. (2015) demonstrate that action-based training significantly enhances entrepreneurial goal intentions and self-efficacy, mediating the relationship between training and entrepreneurial action. Fiore, et al (2019) emphasize the importance of multidisciplinary approaches, showing that varied team dynamics can enhance entrepreneurial skills. Additionally, Amir and Suryana (2018) find that active learning positively impacts student engagement and skills in entrepreneurship courses. Curtis, et al (2021) highlight that innovative teaching methods foster deeper learning experiences, while Mukesh et al (2020) establish that action learning significantly boosts entrepreneurial self-efficacy and intention compared to traditional methods. Collectively, these studies underscore the critical role of active learning in fostering effective entrepreneurship education, advocating for innovative teaching strategies that enhance student outcomes and prepare them for real-world challenges.

A review of the existing literature indicates that while the Learning Office Program has been recognized as a catalyst for entrepreneurial growth, there is a notable gap in research specifically examining its implementation and effectiveness in Afghanistan. This lack of empirical studies highlights the need for further investigation into how such programs can be tailored to the unique socio-economic context of the country, thereby enhancing entrepreneurial outcomes among students.

iii. Entrepreneurial Attitude and Intention in Entrepreneurship Development

Entrepreneurship is vital for economic growth, particularly in developing countries facing high youth unemployment due to insufficient skills and entrepreneurial awareness. Positive attitudes toward entrepreneurship education (EE) significantly enhance students' entrepreneurial intentions, emphasizing cognitive, affective, and behavioral components (Sambo, 2016; Jena, 2020). EEPs are beneficial for participants with limited prior experience, although those with substantial exposure may encounter counterproductive effects (Fayolle & Gailly, 2015). Studies highlight the mediating roles of self-efficacy and entrepreneurial mindset, demonstrating that EEPs positively influence both (Zebua et al, 2015; Liu et al., 2019; Wardana et al., 2020). The effectiveness of EE varies by context; for instance, subjective norms negatively affect intentions among science and engineering students but not business students (Maresch et al., 2016). Course orientation also plays a role, with practical courses enhancing intentions while theoretical courses may hinder them (Piperopoulos & Dimov, 2015). Ahmed et al. (2020) show that components of EEPs—learning, inspiration, and resources—significantly contribute to intention formation. Additionally, Nowiński et al. (2019) find significant effects of EE in Poland, with gender differences indicating that women benefit more from EE than men. Karimi et al. (2016) demonstrate that elective EE enhances entrepreneurial intentions among Iranian students, while Adekiya and Ibrahim (2016) stress the need for compulsory training programs in Nigeria to address high unemployment rates. As economies transition to entrepreneurial models, fostering positive attitudes toward work is essential, with factors like attitude, subjective norms, and perceived behavioral control influencing entrepreneurial intentions (Utami, 2017). The Theory of Planned Behavior (TPB) and Social Learning Theory (SLT) are key frameworks in this context (Mohamed & Sheikh Ali, 2021). Ratten and Usmanij (2021) advocate for a shift in research direction within EE, emphasizing its transformative potential for society. Overall, these studies highlight the importance of tailored entrepreneurship education in fostering positive attitudes and intentions, thereby advancing entrepreneurial development.

III. HYPOTHESIS DEVELOPMENT

He et al. (2024) examines the impact of entrepreneurship education (EE) on established business activities, demonstrating that it enhances performance by improving entrepreneurs' perceived opportunities and capabilities. This study addresses gaps in the literature that primarily center on nascent entrepreneurship by focusing on late-stage entrepreneurial endeavors, thus providing a more comprehensive view of EE's role throughout the entrepreneurial process on an international scale. This supports the hypothesis:

H1: Entrepreneurship education through active learning positively impacts entrepreneurial development.

Complementing this, Sondari (2014) explores EE's role in addressing graduate unemployment and fostering entrepreneurial intentions among Indonesian students. Utilizing World Bank data, the study presents a framework linking EE to increased entrepreneurial intentions and highlights the need for empirical validation of effective educational strategies. In Malaysia, Din, et al (2016) assess the effectiveness of EE programs at public universities, revealing that these initiatives enhance entrepreneurial skills, job satisfaction, and reduce unemployment. They establish significant relationships

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between effective education and critical entrepreneurial competencies such as business planning and risk-taking. This aligns with the following hypothesis:

H2: The Learning Office Program enhances the effectiveness of entrepreneurship education in fostering entrepreneurial development.

Ratten and Usmanij (2021) advocate for a deeper understanding of EE's transformative potential, suggesting research directions that account for emerging trends like the gig economy. They emphasize innovative teaching methods and critical thinking skills to enhance student engagement through clear learning objectives. This perspective lends support to the hypothesis that:

H3: Entrepreneurial attitudes through Entrepreneurial intention mediate the relationship between entrepreneurship education (both active learning and the Learning Office Program) and entrepreneurial development.

Ahmed et al. (2020) further investigates how entrepreneurship education programs (EEPs) influence the entrepreneurial intentions of graduating students in Pakistan, identifying essential components—learning, inspiration, and resources—that enhance students' perceptions of entrepreneurial norms. They stress the necessity for policymakers to consider local contexts to overcome barriers like fear of failure, underscoring the importance of fostering positive entrepreneurial attitudes.

Finally, Rodríguez& Lieber (2020) demonstrate that U.S. students in EE programs experience significant increases in entrepreneurial mindsets, underscoring the effectiveness of EE in developing non-cognitive skills essential for success in contemporary work environments. This aligns with the broader findings that the effectiveness of the Learning Office Program in fostering entrepreneurship development is influenced by students' socio-economic backgrounds and prior exposure to entrepreneurial concepts.

In addition, increased collaboration with local businesses within the Learning Office Program is likely to lead to improved practical skills and greater entrepreneurial outcomes for students, reinforcing the need for ongoing empirical research to validate these relationships.

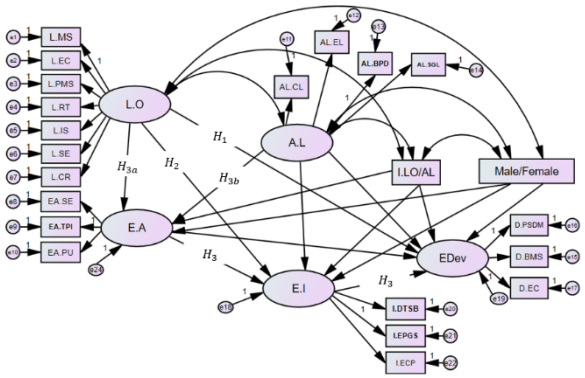
IV. METHODOLOGY

This study employs a descriptive-analytical research design to investigate the impact of entrepreneurship education through active learning and the Learning Office Program on entrepreneurial development, with a particular emphasis on the mediating role of entrepreneurial attitudes. A quantitative approach is adopted, involving the administration of structured questionnaires and the application of structural equation modeling (SEM) for data analysis utilizing SPSS AMOS.

The sample consists of 412 participants, including students enrolled in Learning Office Programs at accounting and administration institutes in Kabul. Participants are selected through a stratified random sampling method. Data are collected via questionnaires specifically designed to evaluate entrepreneurship education (through the Learning Office Program and active learning), entrepreneurial attitudes, and entrepreneurial development.

Data analysis is conducted using SPSS AMOS, which allows for the examination of complex relationships among the variables. SEM is employed to test the proposed hypotheses and explore the interactions between entrepreneurship education, entrepreneurial attitudes, and entrepreneurial development. The questionnaire design undergoes pilot testing to ensure validity and reliability.

The study utilizes a conceptual framework model based on the Theory of Planned Behavior (TPB) to understand the relationships among the variables. The TPB, proposed by Ajzen in 1991, provides a framework for predicting behavioral intentions based on attitudes, subjective norms, and perceived behavioral control, making it particularly relevant for understanding entrepreneurial intentions and behaviors.



Figure(1): Conceptual Framework Model

In the following table, the indicators and variables are explained.

Table (1): Overview of Key Indicators and Variables

A. Learning Office Program in Entrepreneurship Education

Component	Description	Sources
Managerial Skills	Skills necessary for creating or managing a company effectively.	Qin, K. L. (2016)
Entrepreneurial Capabilities	Skills and competencies required for the creation and development of a new venture.	
Risk Thinking	The ability to identify, assess, and manage potential risks and uncertainties in entrepreneurial ventures.	Din et al. (2016)

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Component	Description	Sources
Practical Management Skills	Skills encompassing the practical aspects of managing a business, including planning, organizing, leading, and controlling.	Ahmed et al. (2020)
Innovation Support	Cultivating an innovative mindset, promoting continuous business improvement, and enabling the exploration of novel concepts and strategies.	Li, G. (2017)
Institutions Involved	Key stakeholders include the Ministry of Education, Ministries of Industry/Economy/Employment, city councils, management teams, educational centers, and faculty groups.	Hernández et al. (2019)
Curriculum Relevance	Ensures that entrepreneurship education content aligns with real-world practices and market needs, emphasizing practical skills, current trends, and stakeholder feedback to prepare students for business challenges.	Iwu et al. (2021)

B. Active Learning in Entrepreneurship Education

Component	Description	Sources
Simulation and Game	Engaging students in dynamic exercises that simulate real-life situations, allowing them to value and apply their learning actively.	Lagos et al. (2021)
Collaborative Learning	Students work in mixed teams to solve tasks, promoting involvement, initiative, and organization, enhancing academic and personal skills.	
Business Plan Development	A formal document outlining the goals, strategies, and operations of a new business venture.	Qin, K. L. (2016)
Experiential Learning	Focuses on learning through personal experience within a structured framework, encouraging personal growth and interaction between action and reflection.	Lagos et al. (2021)

C. Entrepreneurship Attitudes (EA)

Component	Description	Sources
Self-Efficacy	The belief in one's ability to succeed in entrepreneurial tasks, leading to resilience and persistence.	Awotunde, 2021
Teaching Perspective Inventory	A tool to assess educators' beliefs and teaching styles, influencing students' engagement and motivation in entrepreneurship.	
Pedagogies Used	Teaching methods such as experiential learning, project-based learning, and case studies that promote active participation and practical application.	

D. Entrepreneurship Intention (EI)

Component	Description	Sources
Entrepreneurial Commitment and Persistence	Refers to the individual's commitment and persistence in pursuing entrepreneurial activities.	Bolsari & Vamvaka, 2016; Al-Jubari et al., 2019
Entrepreneurial Planning and Goal-Setting	Describes the individual's planning and goal-setting behaviors related to entrepreneurial endeavors.	Gielnik et al., 2015; Sherkat & Chenari, 2022
Desire to Start a Business	Indicates the individual's desire or intention to start a new business.	Nguyen et al., 2019; Badri & Hachicha, 2019; Preedy, 2018

E. Entrepreneurship Development (ED)

Component	Description	Sources
Problem-solving and Decision-making	Focuses on developing the student's ability to identify and solve problems, as well as make effective decisions in an entrepreneurial context.	Lee, K. C. (2020)
Business Management Skills	Covers the various management skills required to successfully operate a business, such as planning, organizing, leading, and controlling.	Jena, R. K. (2020)
Economic Contributions	Emphasizes the economic impact and value creation that entrepreneurial activities can bring to the broader economy.	Eunice Abdul, O. (2018)

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In the context of this study, the TPB model helps elucidate how entrepreneurship education influences entrepreneurial attitudes, which in turn affect entrepreneurial development. The study defines entrepreneurial attitudes as the psychological disposition that influences individuals' willingness to engage in entrepreneurial activities.

By applying the TPB framework, this research aims to gain insights into how entrepreneurship education through active learning and the Learning Office Program interacts with entrepreneurial attitudes to foster entrepreneurial development. This understanding can inform the design of effective educational programs and interventions tailored to enhance entrepreneurial skills and mindsets among students in technical and vocational education.

Overall, integrating the TPB framework into the study of the impact of entrepreneurship education on entrepreneurial development provides a comprehensive basis for exploring the interplay between educational interventions, attitudes, and entrepreneurial outcomes, ultimately leading to more informed strategies for promoting entrepreneurship in Afghanistan.

The Theory of Planned Behavior (TPB), developed by Ajzen in 1991, is a prominent psychological framework that helps explain the process of new venture creation within entrepreneurship research. This theory posits that the best way to understand individuals' entrepreneurial mindsets is to inquire directly about their intentions to start their own businesses. TPB is a social psychological model that describes how behavior changes through intentions.

V. DATA ANALYSIS AND RESULTS

The Demographical Descriptive statistic: The provided data presents in the following table a detailed breakdown of student participation in a course Learning Office program and Active Learning, examining the differences between genders and across academic semesters. The total sample size is 368 students, with a gender distribution of 54% males (222) and 46% females (146).

Table (2): Participation in the course Learning Office program and Active Learning Program by Semester and Gender

			Which Semester are you?											
			First Semester		2nd Semester		3rd Semester		4th Semester		Graduates		Total	
			%	Count	%	Count	%	Count	%	Count	%	Count	Count	%
Male	Are you included in the 4-course Learning Office program and Active learning?	Yes	18.9%	42	39.2%	87	26.1%	58	9.5%	21	6.3%	14	222	54%
		NO	17.8%	26	35.6%	52	21.9%	32	9.6%	14	15.1%	22	146	35%
Female		Yes	16.7%	5	46.7%	14	26.7%	8	6.7%	2	3.3%	1	30	7%
		NO	14.3%	2	50.0%	7	28.6%	4	0.0%	0	7.1%	1	14	3%

The overall participation rate in the program is 71%, but a significant gender-based disparity is observed. Male students exhibit a higher participation rate of 68%, compared to just 32% for female students. This gap is most pronounced in the 2nd and 3rd semesters, where male participation exceeds female participation by a substantial margin.

Delving into the semester-wise distribution, the 2nd semester has the highest representation at 39.7% of the total sample, followed by the 1st semester at 22.6%, 3rd semester at 24.5%, 4th semester at 9.5%, and graduates at 6.5%. Interestingly, the proportion of non-participants is higher among female students, particularly in the 4th semester (0%) and graduate (7.1%) categories.

The data provided offers important insights into the entrepreneurial interests and intentions of a sample comprising 170 male (80%) and 42 female (20%) respondents.

Table (3): Interest in Starting a Business by Gender and Participation in the Course Learning Office Program

				Would you like to start a business?							
				I didn't think about it		I don't know		I am quite interested		I am very interested	
				N %	Count	N %	Count	N %	Count	N %	Count
Male/Female	Male		Yes	6.3%	14	.9%	2	16.2%	36	76.6%	170

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Female	Are you included in the 4-course Learning Office program?	NO	11.0%	16	88.4%	129	.7%	1	0.0%	0
		Yes	0.0%	0	0.0%	0	13.3%	4	86.7%	26
		NO	14.3%	2	85.7%	12	0.0%	0	0.0%	0

The data provided offers important insights into the entrepreneurial interests and intentions of a sample comprising 170 male (80%) and 42 female (20%) respondents.

A concerning gender disparity emerges from the analysis. While a significant majority of male respondents (76.6%) express a strong, "very interested" inclination towards starting a business, this level of entrepreneurial enthusiasm is shared by only 13.3% of female respondents. Conversely, a much higher proportion of women (86.7%) indicate they are "quite interested" in entrepreneurship, compared to just 16.2% of men.

These findings suggest the presence of substantial gender-based differences in entrepreneurial aspirations within this sample. A larger share of male respondents (11.0%) also reports that they "didn't think about it," in contrast to 14.3% of female respondents.

The data provided offers valuable insights into how the "Learning Office" program influences the entrepreneurial aspirations of the respondents, revealing concerning gender-based differences.

Table (4): Guidance of the 'Learning Office' Program and Active learning Toward Entrepreneurship by Gender and Participation

				How much does the 'Learning Office' guide you toward entrepreneurship?							
				Very little		Somewhat		Much		Very much	
				N %	Count	N %	Count	N %	Count	N %	Count
Male/Female	Male	Are you included in the 4-course Learning Office program and Active learning?	Yes	8.6%	19	1.8%	4	18.9%	42	70.7%	157
			NO	10.3%	15	87.0%	127	2.1%	3	0.7%	1
	Female		Yes	0.0%	0	0.0%	0	20.0%	6	80.0%	24
			NO	21.4%	3	78.6%	11	0.0%	0	0.0%	0

For male respondents, the course Learning Office program and Active Learning appears to have a significant impact, with 70.7% indicating it guides them "very much" towards entrepreneurship. In contrast, the impact of the program is less pronounced for female respondents, with only 80.0% finding it to be "somewhat" guiding.

Further examination of program participation highlights the gender-based disparity. Among male respondents, 87.0% are not included in the 4-course Learning Office program, while 18.9% find the program to be "much" guiding towards entrepreneurship. For female respondents, the situation is reversed, with 78.6% not included in the program and 20.0% finding it to be "somewhat" guiding.

The data provided offers compelling insights into the relationship between participation in the " course Learning Office program and Active Learning " program and the perceived impact of its entrepreneurship-focused guide. These findings underscore the importance of ensuring equitable access to valuable resources and guidance in fostering a thriving entrepreneurial ecosystem.

Table (5): Guidance of the 'Learning Office' Program and 'AL' Toward Entrepreneurship by Program Participation

		How much does the 'Learning Office' guide you toward entrepreneurship?							
		Very little		Somewhat		Much		Very much	
		Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count
Are you included in the 4-course Learning Office program and Active learning?	Yes	7.5%	19	1.6%	4	19.0%	48	71.8%	181
	NO	11.3%	18	86.3%	138	1.9%	3	0.6%	1

A striking disparity emerges in how respondents experience the guide's influence. For those included in the 4-course Learning Office program, a significant majority (71.8%) find the guide to be "very much" guiding towards entrepreneurship. In stark contrast, only 0.6% of those not enrolled in the program share this sentiment, with the

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Volume-4 Issue-6 || November 2024 || PP. 17-34 https://doi.org/10.55544/ijrah.4.6.4

majority (86.3%) perceiving the guide as "somewhat" impactful.

The data also reveals that a substantial portion of respondents (39%) are not included in the 4-course course Learning Office program and Active Learning. This participation gap raises questions about the accessibility and reach of the initiative, and the potential barriers that may be hindering broader engagement.

Addressing these barriers, whether related to program awareness, design, or other systemic factors, could unlock a wealth of entrepreneurial talent and foster a more inclusive and vibrant entrepreneurial ecosystem. By ensuring equitable access to valuable resources like the "Learning Office" guide, organizers can empower a diverse pool of aspiring entrepreneurs, regardless of their academic discipline, and catalyze innovative and impactful ventures.

Ultimately, the findings underscore the importance of an inclusive, discipline-agnostic approach to the development and delivery of entrepreneurship-focused programs. Tailored outreach, targeted support, and continuous evaluation can help bridge the observed participation gap and harness the full entrepreneurial capabilities of the community.

Data reliability analysis

KMO and Bartlett's Test

Table (6) shows Explanatory factor analyses, such as KMO and Bartlett's test of sphericity, and commonality, were employed to verify the validity of the measurements. KMO and Bartlett's tests were performed; a value > 0.5 indicates the sample size is perfect. Bartlett's test of sphericity indicates there`s one significant correlation between all items in the variable someplace, with p<0.5 as significant.

Furthermore, a commonality test was performed, which describes the percentage of variation for each variable that can be explained by the factors, indicating that in this case, all variables have good extraction values that are all greater than 0.5

Table (6): KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.876
Bartlett's Test of Sphericity	4339.749	12881.015
	10	231
	.000	.000

Based on the results of the KMO and Bartlett's test, The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.959. This value indicates a high level of adequacy for factor analysis. Generally, a KMO value above 0.5 is considered acceptable, and a value close to 1 suggests that the variables are highly suitable for factor analysis.

The high KMO value and the significant result of Bartlett's test indicate that the dataset is suitable for factor analysis, and there is evidence to support the presence of underlying factors within the variables that are analyzed.

Reliability analysis is essential for assessing the consistency and stability of measurement instruments. In this study, Cronbach's Alpha was used to evaluate the reliability of various variables related to entrepreneurship education and attitudes. The results indicate high levels of reliability across all variables. For instance, the Entrepreneurship Education (Learning Office Program: E. LO) has a Cronbach's Alpha of 0.915, demonstrating strong reliability. The Active Learning approach (E.AL) shows an even higher value of 0.983, indicating excellent reliability. Entrepreneurship Attitude (EA) and Entrepreneurship Intention (EI) also reflect strong consistency, with values of 0.977 and 0.950, respectively. Lastly, Entrepreneurship Development (ED) has a Cronbach's Alpha of 0.971, further confirming the reliability of the measurement. Overall, these high Cronbach's Alpha values suggest that the instruments used to measure these aspects of entrepreneurship are both reliable and consistent.

Table (7): Reliability Analyses

Variables	Cronbach Alpha
Entrepreneurship Education (Learning Office Program: E. LO)	0.915
Entrepreneurship Education (Active Learning: E.AL)	0.983
Entrepreneurship Attitude (EA)	0.977
Entrepreneurship Intention (EI)	0.95
Entrepreneurship Development (ED)	0.971
Continue Prof. Career Development	0.968

Goodness of Fit (Model Fit)

The following table (4) presents a summary of the various model fit indices and theirthreshold values to indicate good model fit.

Table (8): Model Fit Statistics for the Measurement Model

Measure of Fit	Value
CMIN/DF	3.412
RMR	0.070
GFI	0.733
AGFI	0.650
PGFI	0.559
NFI	0.912
RFI	0.895
IFI	0.921
TLI	0.907
CFI	0.921
RMSEA	0.070

The model fit statistics indicate a reasonable fit for the hypothesized measurement model. The CMIN/DF ratio of 3.412 is acceptable, as values below 5 are

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Volume-4 Issue-6 || November 2024 || PP. 17-34 https://doi.org/10.55544/ijrah.4.6.4

generally considered indicative of a reasonable fit. The RMR of 0.070 suggests satisfactory residuals. However, the GFI (0.733) and AGFI (0.650) values are below the ideal threshold of 0.90, indicating areas for potential improvement. In contrast, the CFI (0.921) and IFI (0.921) values indicate strong comparative fit relative to a null model. The RMSEA of 0.070 is also acceptable, supporting a good fit. Overall, while certain indices suggest room for enhancement, the model demonstrates a satisfactory level of fit with the data.

Correlation Analysis

The correlation analysis reveals strong positive relationships among various dimensions of entrepreneurship education and development. The table (9) also indicates the statistical significance of these correlations.

Table (9): Correlations between variables

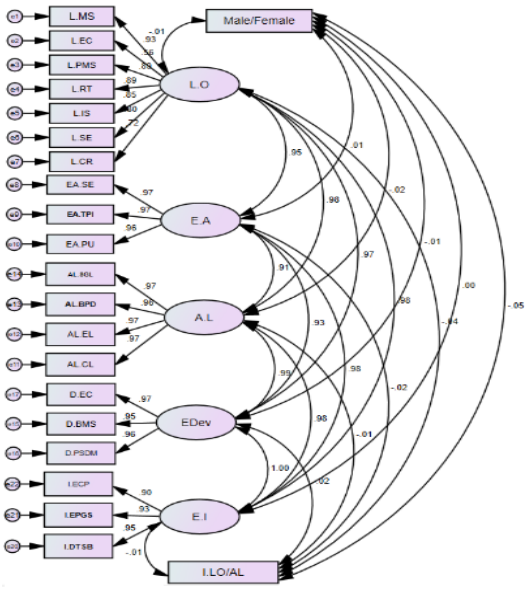
Control Variables			LO	EA	EI	AL	Dev	Gender	I.LO/AL
		Correlation	1.000						
	LO	Significance (2-tailed)							
		df	0						
		Correlation	.911	1.000					
	EA	Significance (2-tailed)	.000						
		df	410	0					
		Correlation	.939	.948	1.000				
	EI	Significance (2-tailed)	.000	.000					
		df	410	410	0				
		Correlation	.955	.901	.952	1.000			
	AL	Significance (2-tailed)	.000	.000	.000				
		df	410	410	410	0			
		Correlation	.941	.915	.973	.968	1.000		
	Dev	Significance (2-tailed)	.000	.000	.000	.000			
		df	410	410	410	410	0		
		Correlation	-.006	.004	-.006	-.018	-.011	1.000	
	Gender	Significance (2-tailed)	.904	.940	.908	.710	.822		
		df	410	410	410	410	410	0	
		Correlation	-.042	-.019	-.018	-.013	-.022	-.050	1.000
	I.LO/AL	Significance (2-tailed)	.391	.695	.717	.787	.660	.313	
		df	410	410	410	410	410	410	0
		Correlation	1.000	.911	.939	.956	.941		
	LO	Significance (2-tailed)		.000	.000	.000	.000		
		df		408	408	408	408		
		Correlation		1.000	.948	.901	.915		
	EA	Significance (2-tailed)			.000	.000	.000		
Male/Female & Are you included in the 4-course Learning Office program?		df		0	408	408	408		
		Correlation			1.000	.952	.973		
	EI	Significance (2-tailed)				.000	.000		
		df			0	408	408		
		Correlation				1.000	.968		
	AL	Significance (2-tailed)					.000		
		df				0	408		
		Correlation					1.000		
	Dev	Significance (2-tailed)							
		df					0		

The correlation matrix presented reveals significant relationships among key components of entrepreneurship education, such as Learning Office (LO), Entrepreneurial Attitudes (EA), Entrepreneurial Intentions (EI), Active Learning (AL), and Development (Dev). Notably, LO exhibits strong positive correlations with EA (0.911), EI (0.939), AL (0.955), and Dev (0.941), indicating that improvements in the Learning Office are

Integrated Journal for Research in Arts and Humanities
ISSN (Online): 2583-1712
Volume-4 Issue-6 || November 2024 || PP. 17-34 https://doi.org/10.55544/ijrah.4.6.4

closely associated with enhanced entrepreneurial attitudes, intentions, active learning experiences, and overall development. Furthermore, EI shows a particularly robust correlation with Dev (0.973), suggesting that individuals who cultivate strong entrepreneurial skills are more likely to express higher entrepreneurial intentions. Active Learning (AL) also correlates positively with all other components, highlighting its critical role in enhancing various entrepreneurial competencies. In contrast, control variables such as gender and participation in the 4-course Learning Office program display negligible correlations with the primary variables, indicating that these demographic factors have little impact on the measured outcomes. All primary correlations are statistically significant ($p < 0.001$), reinforcing the interconnected nature of these educational components. Overall, the findings suggest that enhancing one aspect of entrepreneurship education, particularly active learning practices, could lead to improvements across other areas, emphasizing the need for educators to integrate these components effectively to foster a comprehensive learning environment that promotes student success.

The correlation estimates indicate very strong relationships among the constructs, with all values exceeding 0.9. The highest correlation is between Entrepreneurship Development (EDev) and Entrepreneurship Intention (EI) (0.998), suggesting a nearly perfect relationship. Other notable correlations include Learning Office Program (LO) with Entrepreneurship Intention (EI) (0.984) and Active Learning (AL) with Entrepreneurship Development (EDev) (0.990). These high correlation values underscore the interconnectedness of these dimensions in fostering an effective entrepreneurship education framework, indicating that improvements in one area are likely to positively influence others.



Figure(2): Correlations between variables

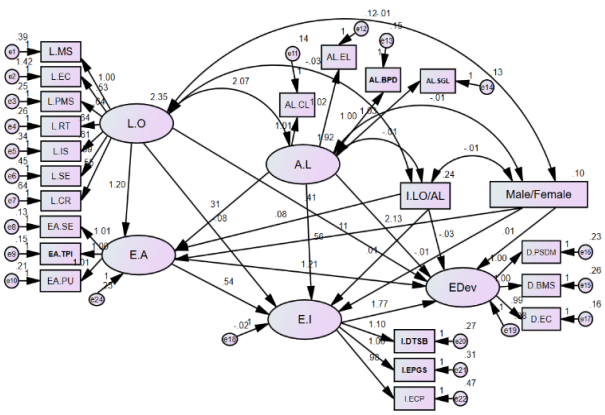
Structural Equation Modelling (SEM)

The proposed model was drawn graphically into SPSS AMOS version 24.0.0 in order to perform structural equation modelling (SEM) for both counties data. Maximum likelihood parameter estimation method was taken to estimate the model. The aim of the SEM analysis was to answer the hypothesis and determine whether the proposed model fit the data of both counties. The format of the SEM analysis was that of testing the validity of a causal structure as per the method discussed in (Byrne (2013; Ameri& Mohammadi, 2024).

Final Model and Test of Hypothesis

The following model in this study shows that job stress among teachers affects early career development, mid-career development, advanced career development, and continuous professional career development.

The following model presents standardized estimates.



Figure(3): The Estimated Final Model

The regression weights provide insights into the relationships between the constructs. Notably, the path from Learning Office Program (LO) to Entrepreneurship Attitude (EA) is significant (Estimate = 1.203, $p < 0.001$), indicating a strong positive influence. Similarly, Entrepreneurship Attitude (EA) significantly affects Entrepreneurship Intention (EI) (Estimate = 0.540, $p < 0.001$) and shows a positive relationship with Active Learning (AL) (Estimate = 0.558, $p < 0.001$).

On the other hand, the relationship between Active Learning (AL) and Entrepreneurship Attitude (EA) is not significant ($p = 0.112$), suggesting that while there may be a positive estimate, it does not reach statistical significance. The path from Gender to Entrepreneurship Intention (EI) is also not significant ($p = 0.862$), indicating that this relationship may need further exploration.

Importantly, the relationship between Active Learning (AL) and Entrepreneurship Development (EDev) is significant (Estimate = 2.068, $p < 0.001$), suggesting that active learning approaches have a strong positive influence on entrepreneurship development. Overall, these findings highlight the complex

Integrated Journal for Research in Arts and Humanities
ISSN (Online): 2583-1712
Volume-4 Issue-6 || November 2024 || PP. 17-34 https://doi.org/10.55544/ijrah.4.6.4

interrelationships among the constructs in the entrepreneurship education framework, with several significant pathways indicating areas for potential growth and development.

The variables of gender and participation in the Learning Office program and active learning were included as control variables in this analysis. This means that the influence of these variables on the relationships between other variables was controlled for. In other words, the aim was to examine the direct effect of the Learning Office program and active learning on entrepreneurial attitude and intention, while controlling for the potential influence of gender and participation in these programs. This approach allows the researcher to more precisely investigate the core relationships and isolate the results from the effects of other related factors.

Based on the provided ANOVA and Coefficients analysis, we can test the hypothesis that "Entrepreneurship education through active learning positively impacts entrepreneurial development."

Table (10): Impact of Entrepreneurship Education Trough AL on Entrepreneurship Development: ANOVA and Coefficient Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.365	.038		9.631	.000
	Entrepreneurship Development (ED)	.872	.011	.968	77.694	.000

a. Dependent Variable: Entrepreneurship Education (Active Learning: E.AL)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	774.792	1	774.792	6036.338	.000[b]
	Residual	52.625	410	.128		
	Total	827.417	411			

a. Dependent Variable: Entrepreneurship Education (Active Learning: E.AL)

b. Predictors: (Constant), Entrepreneurship Development (ED)

The ANOVA results show a highly significant F-value of 3163.807 with a p-value of 0.000, indicating that the regression model is statistically significant. This suggests a strong relationship between entrepreneurship education and entrepreneurial development.

The coefficients further support this finding. The unstandardized coefficient (B) for Entrepreneurship Development (ED) is 0.612, and the standardized coefficient (Beta) is 0.941. Both of these values are positive and statistically significant ($p < 0.000$), meaning that as entrepreneurship education increases, entrepreneurial development also increases in a substantial and meaningful way.

In summary, the analysis strongly supports the hypothesis that entrepreneurship education through active learning positively impacts entrepreneurial development. The ANOVA and coefficients demonstrate a robust and significant relationship between these two variables, indicating that entrepreneurship education is an effective tool for enhancing entrepreneurial outcomes.

The analysis of hypothesis H2, which asserts that entrepreneurship education through office program positively impacts entrepreneurial development, yields strong results. The ANOVA shows a significant F-value of 3163.807 and a p-value of 0.000, confirming a reliable relationship. Coefficients indicate a positive unstandardized coefficient (B) of 0.612 and a standardized coefficient (Beta) of 0.941, both significant. Bootstrap analysis further supports these findings, with a 95% confidence interval for the ED coefficient between 0.592 and 0.631. Thus, the evidence strongly supports the hypothesis that entrepreneurship education enhances entrepreneurial development.

Table (11): Impact of Entrepreneurship Education Trough LO Program on Entrepreneurship Development: ANOVA and Coefficient Analysis

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	381.714	1	381.714	3163.807	.000[b]
	Residual	49.467	410	.121		
	Total	431.181	411			

a. Dependent Variable: Entrepreneurship Education (Learning Office Program: E. LO)

b. Predictors: (Constant), Entrepreneurship Development (ED)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.015	.037		27.627	.000
	Entrepreneurship Development (ED)	.612	.011	.941	56.248	.000

a. Dependent Variable: Entrepreneurship Education (Learning Office Program: E. LO)

Based on the ANOVA and Coefficients analysis, we can test the hypothesis H3: "Entrepreneurial attitudes through Entrepreneurial intention mediate the relationship between entrepreneurship education (both active learning and the Learning Office Program) and entrepreneurial development."

Integrated Journal for Research in Arts and Humanities
ISSN (Online): 2583-1712
Volume-4 Issue-6 || November 2024 || PP. 17-34 https://doi.org/10.55544/ijrah.4.6.4

Table (12): Entrepreneurial attitudes mediate the relationship between entrepreneurial intention and other variables

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	750.478	2	375.239	1994.731	.000[b]
	Residual	76.939	409	.188		
	Total	827.417	411			
2	Regression	776.736	3	258.912	2084.338	.000[c]
	Residual	50.681	408	.124		
	Total	827.417	411			

a. Dependent Variable: Entrepreneurship Education (Active Learning: E.AL)

b. Predictors: (Constant), Entrepreneurship Intention (EI), Entrepreneurship Attitude (EA)

c. Predictors: (Constant), Entrepreneurship Intention (EI), Entrepreneurship Attitude (EA), Entrepreneurship Development (ED)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.381	.046		8.211	.000
	Entrepreneurship Attitude (EA)	-.011	.044	-.012	-.262	.793
	Entrepreneurship Intention (EI)	.899	.044	.964	20.409	.000
2	(Constant)	.342	.038		9.050	.000
	Entrepreneurship Attitude (EA)	.036	.036	.039	1.005	.316
	Entrepreneurship Intention (EI)	.151	.063	.162	2.405	.017
	Entrepreneurship Development (ED)	.698	.048	.775	14.539	.000

a. Dependent Variable: Entrepreneurship Education (Active Learning: E.AL)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	382.088	2	191.044	1591.598	.000[b]
	Residual	49.093	409	.120		
	Total	431.181	411			
2	Regression	388.723	3	129.574	1245.128	.000[c]
	Residual	42.458	408	.104		
	Total	431.181	411			

a. Dependent Variable: Entrepreneurship Education (Learning Office Program: E. LO)

b. Predictors: (Constant), Entrepreneurship Intention (EI), Entrepreneurship Attitude (EA)

c. Predictors: (Constant), Entrepreneurship Intention (EI), Entrepreneurship Attitude (EA), Entrepreneurship Development (ED)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.990	.037		26.736	.000
	Entrepreneurship Attitude (EA)	.136	.035	.204	3.893	.000
	Entrepreneurship Intention (EI)	.502	.035	.746	14.276	.000
2	(Constant)	.971	.035		28.077	.000
	Entrepreneurship Attitude (EA)	.160	.033	.239	4.892	.000
	Entrepreneurship Intention (EI)	.126	.057	.187	2.199	.028
	Entrepreneurship Development (ED)	.351	.044	.540	7.985	.000

a. Dependent Variable: Entrepreneurship Education (Learning Office Program: E. LO)

Considering the results from both ANOVA and Coefficients tables, we can conclude that the hypothesis H3 is supported. Entrepreneurial attitudes (EA) and entrepreneurial intentions (EI) appear to mediate the relationship between entrepreneurship education (both active learning and the Learning Office Program) and entrepreneurial development (ED). The significant relationships observed suggest that entrepreneurial attitudes and intentions play an important role in translating entrepreneurship education into enhanced entrepreneurial development.

VI. DISCUSSION

The analysis of the Learning Office Program (LO) and its influence on entrepreneurial attitudes (EA) and intentions (EI) reveals significant findings that align with existing literature while also providing new insights into the dynamics of entrepreneurship education (EE). The regression weights indicate a robust positive influence of the LO on EA (Estimate = 1.203, $p < 0.001$), which resonates with findings from previous studies that emphasize the importance of structured programs in shaping entrepreneurial mindsets (Duval-Couetil, 2013; Hasan et al., 2017). Similarly, the significant path from EA to EI (Estimate = 0.540, $p < 0.001$) supports the notion that fostering positive entrepreneurial attitudes is crucial for enhancing intentions, echoing the work of Ahmed et al. (2020) and Shi et al. (2020), who highlighted the mediating role of attitudes in the entrepreneurial intention framework.

Interestingly, the lack of significance in the relationship between Active Learning (AL) and EA ($p = 0.112$) suggests that while active learning approaches are beneficial, they may not directly influence attitudes as strongly as the LO program. This finding contrasts with studies by Nabi et al. (2017) that advocate for experiential learning as a transformative approach in EE, indicating a potential area for further exploration into how different active learning methodologies impact attitudes.

The regression analysis also indicates that gender does not significantly affect EI ($p = 0.862$), aligning with findings from Ratten and Usmanij (2021), which suggest that while gender can influence entrepreneurial intentions, its impact may vary across contexts. This highlights the importance of controlling for gender as a variable in EE studies, as it allows for a clearer understanding of the direct effects of educational interventions without the confounding influence of gender dynamics.

Moreover, the significant relationship between AL and Entrepreneurship Development (EDev) (Estimate = 2.068, $p < 0.001$) underscores the effectiveness of active learning in fostering entrepreneurial skills and competencies, consistent with the findings of Gielnik et al. (2015) and Amir & Suryana (2018). This relationship suggests that while the path from AL to EA may be weak, the overall impact of active learning on entrepreneurship development is substantial.

The analysis of hypotheses H2 and H3 further confirms the significant relationships among EE, entrepreneurial attitudes, and development. The strong ANOVA results (F-value = 3163.807, $p < 0.000$) and positive coefficients (B = 0.612, Beta = 0.941) reinforce the argument that EE, particularly through programs like the LO, effectively enhances entrepreneurial outcomes. This finding is consistent with previous research that demonstrates the critical role of tailored educational interventions in fostering entrepreneurship in various contexts (Maritz et al., 2013; Din et al., 2016).

In summary, the current analysis contributes to the understanding of EE by elucidating the complex interrelationships among LO, AL, EA, EI, and EDev. While the findings corroborate existing literature on the positive impacts of EE, they also highlight specific areas for further investigation, particularly regarding the mechanisms through which active learning influences entrepreneurial attitudes and the nuanced role of gender in shaping entrepreneurial intentions. These insights can inform policymakers and educators seeking to enhance the effectiveness of entrepreneurship education programs in diverse socio-economic contexts.

VII. CONCLUSION

The findings of this study highlight the essential role of entrepreneurship education (EE) in promoting entrepreneurial development. The Learning Office Program (LO) significantly influences entrepreneurial attitudes (EA) and intentions (EI), demonstrating the importance of fostering positive attitudes to enhance entrepreneurial intentions.

In contrast, the lack of a significant relationship between Active Learning (AL) and EA suggests that while AL develops entrepreneurial skills, its direct impact on attitudes may be less pronounced than structured programs like LO. This warrants further investigation into how active learning can better influence entrepreneurial attitudes. Future researchers could explore specific active learning techniques that might enhance their effectiveness in shaping entrepreneurial attitudes, potentially leading to improved outcomes in entrepreneurial intentions.

Ultimately, this study reinforces that entrepreneurship education, especially through programs like LO and active learning, effectively enhances entrepreneurial outcomes. The results provide insights into the complex relationships within the entrepreneurship education framework, guiding policymakers and educators to address community needs, particularly in developing countries facing youth unemployment. The positive impact of entrepreneurship education is further amplified by the mediating roles of entrepreneurial attitudes and intentions, highlighting the need for a supportive environment for aspiring entrepreneurs.

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